



Fairfax County
VIRGINIA



APPENDIX

APPENDIX

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Fairfax County IT Standards

DESKTOP, LAPTOP:	
Operation System	Windows XP
DESKTOP APPLICATIONS:	
Word Processor	Microsoft Word 2003
Spreadsheet	Microsoft Excel 2003
Presentation	Microsoft PowerPoint 2003
Database	Microsoft Access 2003
E-Mail Client	Microsoft Outlook 2003 / Outlook Web Access (latest release)
Project Management	Microsoft Project Professional 2003
Graphics	Microsoft Visio Professional 2003
SPECIALTY APPLICATIONS:	
Web Browser	Microsoft Internet Explorer (latest release)
Antivirus	Symantex AntiVirus (latest release) for Workstations and Servers
Mainframe 3270 Emulation Software	Jacada web-browser based 3270 emulation
GIS	Arc/Info 8.3 ArcView 3.3 ArcView 8.3 ERDAS 8.6 Map Objects 2.1 ARC Internet Map Server 4.1 ArcSDE 8.3
SERVERS:	
Operating System	Microsoft Windows Server 2003 Standard Edition Microsoft Windows Server 2003 Enterprise Server (clustering or servers with 4 processors or more) Solaris (latest release) z/OS 1.4
Thin Client Access	Citrix MetaFrame XPe
Hardware	Intel (Windows) SUN (UNIX) IBM S390 (Mainframe)
Backup	Tivoli Storage Manager 5.1 z/OS DFSMS
Storage	SAN
E-Mail	Microsoft Exchange Server 2003 Enterprise Edition Lsoft ListServ
Web Application Servers	Microsoft Internet Information Server (latest release) Apache Web Server if JAVA based web server required by COTS package .NET FRAMEWORK Active Server Pages /ASP.NET (latest release)
Database	Oracle 8 or higher DB2 Release 6 Microsoft SQL Server 2000
Communications Protocol	TCP/IP

CHART A: PLATFORM ARCHITECTURE STANDARDS: END USER HARDWARE

COMPONENT	DESKTOPS	DESKTOPS/ HIGH END USERS	LAPTOPS	LAPTOPS/ HIGH END USERS
POWER	Single	Single	Single	Single
CPU	Pentium IV 2.2 GHz	Pentium IV 3.0 GHz 800 FSB	Pentium IV 1.6 GHz	Pentium IV 1.7 GHz
DISK CONFIGURATION	40 GB Hard Drive, 3.5 Floppy, 48X DVD CD-RW Combo Drive	80 GB Hard Drive, 3.5 Floppy, 48X DVD CD-RW Combo Drive	60 GB Hard Drive, DVD-CDRW Combo Drive	60 GB Hard Drive, DVD-CDRW Combo Drive
RAM	512 MB 2 DIMMS, expandable	1 GB 2 DIMMS, expandable	512 MB	1 GB 2 DIMMS
MONITOR	17" SVGA, Ultra Sharp, Flat Panel	17" SVGA, Ultra Sharp, Flat. Panel	Active/Passive Matrix (dependent on laptop resident applications)	Active/Passive Matrix (dependent on laptop resident applications)
INTERFACE CARD(S)	Ethernet 10/100/1000 Base-T	Ethernet 10/100/1000 Base-T	Built-in Ethernet Card	Built-in Ethernet Card
OPERATING SYSTEM	Windows 2000 Pro	Windows 2000 Pro	Windows 2000 Pro	Windows 2000 Pro
MAINTENANCE	3 Year on-site, next business day	3 Year on-site, next business day	3 Year on-site, next business day	3 Year on-site, next business day
ADDITIONAL HARDWARE REQUIREMENTS	UL Approved Surge Protector (new) Sound Card, 2 USB ports	UL Approved Surge Protector (new) Sound Card, 2 USB Ports	UL Approved Surge Protector (new) Back-up Battery Docking Station (if used as desktop) Security Lock	UL Approved Surge Protector (new) Back-up Battery Docking Station (if used as desktop) Security Lock
MAINFRAME 3270 EMULATION	Jacada web-based 3270 emulation	Jacada web-based 3270 emulation	Jacada web-based 3270 emulation	Jacada web-based 3270 emulation
THIRD PARTY SOFTWARE	Symantec Anti Virus, Enterprise Edition Microsoft Internet Explorer (latest release) MS Office Suite XP MS Outlook MS SMS Client	Symantec Anti Virus, Enterprise Edition Microsoft Internet Explorer (latest release) MS Office Suite XP MS Outlook MS SMS Client	Symantec Anti Virus, Enterprise Edition Microsoft Internet Explorer (latest release) MS Office Suite XP MS Outlook MS SMS Client	Symantec Anti Virus, Enterprise Edition Microsoft Internet Explorer (latest release) MS Office Suite XP MS Outlook MS SMS Client
PRE-INSTALL OPTIONS	All components (hardware) installed	All components (hardware) installed	All components (hardware) installed	All components (hardware) installed
PREFERRED MANUFACTURER	Dell	Dell	Dell	Dell
OPTIONAL (AS REQUIRED FOR BUSINESS NEEDS)	Speakers Head Phones Additional Memory Additional Hard Drive	Speakers Head Phones Additional Memory Additional Hard Drive	Speakers Head Phones Additional Memory Additional Hard Drive	Speakers Head Phones Additional Memory Additional Hard Drive

CHART B: PLATFORM ARCHITECTURE STANDARDS: FILE/PRINT/WEB SERVICES

COMPONENT	FILE/PRINT SERVERS	WEB SERVERS (INTEL)	WEB SERVERS (UNIX)
TYPE	INTEL	INTEL	INIX
POWER	Redundant, UPS required if not EOC-resident	Redundant, UPS required if not EOC-resident	Redundant, UPS required if not EOC-resident
FAULT TOLERANCE / DISK CONFIGURATION Database/Application Drives –	Operating System Drives – Raid 1 (Mirrored) Database/Application Drives – Raid 5 utilizing SAN if EOC resident	Operating System Drives – Raid 1 (Mirrored) Database/Application Drives Raid 5 utilizing SAN if EOC resident	Operating System Drives - Raid 1 (Mirrored) Raid 5 utilizing SAN if EOC resident
CPU	Dual 3.0 MHz	Dual 3.0 MHz	Dual 1.5 GHz
NETWORK INTERFACE CARDS	Dual Ethernet 1000 Base-T	Dual Ethernet 1000 Base-T	Dual Ethernet 1000 Base-T
OPERATION SYSTEM(S)	Windows 2000 Server	Windows 2000 Server	Solaris (latest release)
MONITOR	17" SVGA Color, if non-EOC site Not required if EOC resident	17" SVGA Color, if non-EOC site Not required if EOC resident	Rack mountable Flat LCD monitor Required if EOC resident
RAM Minimum Cache 256MB	4.0 GB Minimum Cache – Database/	4.0 GB Minimum Cache – Database/ Application specific	8.0 GB Application specific
FILE SYSTEMS	NTFS	NTFS	Solaris
THIRD PARTY SOFTWARE REQUIREMENTS MS SMS Client Internet Information Server	Symantec Antivirus, Enterprise Edition MS SMS Client Internet Information Server	Symantec Antivirus, Enterprise Edition Netegrity SiteMinder Agent (latest edition) or Apache Web Server if JAVA based web server required by COTS package	Symantec Antivirus, Enterprise Edition (latest edition) or Apache Web Server if JAVA based web server required by COTS package
PREFERRED MANUFACTURER	Dell	Dell	Sun
MAINTENANCE	3 Year, 24/7, 4 hour on-site, parts & labor included	3 Year, 24/7, 4 hour on-site, parts & labor included	3 Year, 24/7, 4 hour on-site, parts & labor included
ADDITIONAL HARDWARE REQUIREMENTS	Raid Controller Rack mountable rails if EOC resident Minimum 3 Open Slots to facilitate system expansion HBAs (if connected to SAN)	Raid Controller Rack mountable rails if EOC resident Minimum 3 Open Slots to facilitate system expansion HBAs (if connected to SAN)	Raid Controller Rack mountable rails if EOC resident Minimum 2 Open Slots to facilitate system expansion Dual HBAs (if connected to SAN); DVD-ROM & Tape Drive (DDS-4)
PRE-INSTALL OPTIONS	None	None	None
STORAGE AND BACKUP HARDWARE/SOFTWARE	Tivoli Storage Manager Enterprise Backup Client	Tivoli Storage Manager Enterprise Backup Client	Tivoli Storage Manager Enterprise Backup Client Veritas Volume Manager (if connected to SAN)

CHART C: PLATFORM ARCHITECTURE STANDARDS: DATABASE/APPLICATION SERVERS

COMPONENT	DATABASE SERVERS (INTEL)	DATABASE SERVERS (UNIX)	APPLICATION SERVERS (INTEL)	APPLICATION SERVERS (UNIX)
TYPE	INTEL	UNIX	INTEL	UNIX
POWER	Redundant, UPS required if not EOC-resident	Redundant, UPS required if not EOC-resident	Redundant, UPS required if not EOC-resident	Redundant, UPS required if not EOC-resident
FAULT TOLERANCE/ DISK CONFIGURATION	Operating System Drives – Raid 1 (Mirrored) Database/Application Drives – Raid 5 (utilizing SAN if EOC resident)	Operating System Drives – Raid 1 (Mirrored) Database/Application Drives – Raid 5 (utilizing SAN if EOC resident)	Operating System Drives – Raid 1 (Mirrored) Database/Application Drives – Raid 5 (utilizing SAN if EOC resident)	Operating System Drives – Raid 1 (Mirrored) Database/Application Drives – Raid 5 (utilizing SAN if EOC resident)
CPU	Quad 3.0 MHz	Quad 3.0 MHz	Dual 3.0 MHz	Quad 3.0 MHz
NETWORK INTERFACE CARDS	Dual Ethernet 1000 Base-T	Dual Ethernet 1000 Base-T	Dual Ethernet 1000 Base-T	Dual Ethernet 1000 Base-T
OPERATION SYSTEM(S)	Windows 2003 Server Windows 2003 Advanced Server (Clustering)	Solaris (latest release)	Windows 2003 Server Windows 2003 Advanced Server (Clustering)	Solaris (latest release)
MONITOR	17" SVGA Color, if non-EOC site Not required if EOC resident	Rack Mountable LCD Flat monitor Not required if EOC resident	17" SVGA Color, if non-EOC site Not required if EOC resident	Rack Mountable LCD Flat monitor Not required if EOC resident
RAM	8.0 GB Minimum Cache – Database/ Application specific	8.0 GB Minimum Cache – Database/ Application specific	8.0 GB Minimum Cache – Database/ Application specific	4.0 GB Minimum Cache – Database/ Application specific
FILE SYSTEMS	NTSF	Solaris / AIX	NTSF	Solaris
THIRD PARTY SOFTWARE REQUIREMENTS	Symantec Antivirus, Enterprise Edition MS SMS Client	Symantec Antivirus, Enterprise Edition	Symantec Antivirus, Enterprise Edition MS SMS Client	Symantec Antivirus, Enterprise Edition
PREFERRED MANUFACTURER	Dell	IBM/SUN	Dell	SUN
MAINTENANCE	3 Year, 24/7, 4 hour on-site, parts & labor included	3 Year, 24/7, 4 hour on-site, parts & labor included	3 Year, 24/7, 4 hour on-site, parts & labor included	3 Year, 24/7, 4 hour on-site, parts & labor included
ADDITIONAL HARDWARE REQUIREMENTS	Raid Controller Rack mountable rails if EOC resident Minimum 3 Open Slots to facilitate system expansion HBAs (if connected to SAN)	Raid Controller Internal Tape Drive for Root Volume Backup Minimum 2 Open Slots to facilitate system expansion HBAs (if connected to SAN)	Raid Controller Rack mountable rails if EOC resident Minimum 3 Open Slots to facilitate system expansion HBAs (if connected to SAN)	Raid Controller Internal Tape Drive for Root Volume Backup Minimum 2 Open Slots to facilitate system expansion Dual HBAs (if connected to SAN); DVD-ROM, Tape Drive (DDS-4)
STORAGE AND BACKUP HARDWARE/SOFTWARE	Tivoli Storage Manager Enterprise Backup Client TDP for Oracle or SQL server	Tivoli Storage Manager Enterprise Backup Client TDP for Oracle or SQL server	Tivoli Storage Manager Enterprise Backup Client	Tivoli Storage Manager Enterprise Backup Client

CHART D: DATABASE & APPLICATION ARCHITECTURE STANDARDS: SERVERS

COMPONENT	MAINFRAME	UNIX	INTEL	INERNET/INTRANET
DATABASE SOFTWARE	DB2, VSAM	Oracle 9i	Oracle 9i or SQL Server (latest release)	N/A
APPLICATION SOFTWARE	N/A	.NET Framework	.NET Framework	Index Server (w/PDF 1-filter) (or Verity K2E1, .NET Framework
SOFTWARE/ DEVELOPMENT TOOLS	COBOL, CICS, TSO, JCL	Visual Studio.Net	Visual Studio.Net	Homesite, Visual Studio.NET 2003 or higher, Dreamweaver
SECURITY SOFTWARE	RACF	Native operating system	Active Directory	Netegrity SiteMinder
APPLICATION INTEGRATION	web Methods	web Methods	web Methods	web Methods
SCHEDULER	CA7	CRON	Scheduler Service	Scheduler Service
AD HOC REPORT TOOLS	Crystal Reports, SAS, Easytrieve Plus, QMF	Crystal Reports, SAS	Crystal Reports, SAS	Crystal Reports, SAS
WORKSTATION REQUIREMENTS	Jacada web-based 3270 Emulations, TCP/IP Connectivity	Oracle Client Suite, ODBC Drivers	Oracle Client Suite, ODBC Drivers	Microsoft Internet Explorer (latest release)

DATA COMMUNICATIONS STANDARDS

NETWORK INTERFACE CARDS

Mother Board	Primary NIC	Secondary NIC	Laser Printer NIC
Ethernet	3COM	IBM	HP Jet Direct

The exact make and model is determined by the end-station standard.

Secondary NIC is a backup product in case of difficulty with the availability of the Primary NIC or special end-node requirements.

All IP-addressable printers.

NETWORK PROTOCOLS

Current	Future
TCP/IP	TCP/IP only
SNA (DLSW)	
OSPF	

CABLING STANDARDS

Structured cabling based on the ANSI/TIA/Eia and ISO standards.

A) Horizontal (cabling and pathways)

Current	Future
CAT5/5e UTP and SCTP	CAT6 UTP and SCTP

B) Outlets

Current	Future
Category 5/5e Cabling	Category 6 Cabling
Siemen's 4 outlet modular faceplates	
Color-coded inserts <i>(to identify the media being used in each outlet)</i>	
Voice and data terminated at the same faceplate.	

C) Between Buildings / Backbone

Current	Future
Dependent on Distance	Investigating wireless between buildings and within certain areas of buildings
12 strand "single mode" OFNP, single mode optical fiber.	
62.5/125 and 5/125 OFNP multi-mode and single-mode optical fiber.	